

of Brucellosis in this area. So evaluation of all PUO for brucellosis was done for 2 years. There was laboratory associated infection among 4 postgraduate students who worked with blood culture automated system.

Methods: During 2 years duration 841 cases of PUO were admitted to Kasturba Hospital Manipal and evaluated. 32 cases were diagnosed as Brucellosis by isolation in blood culture, standard tube agglutination test and ELISA for IgM and IgG.

Results: Out of 32 cases 15 were blood culture positive and 17 were positive only by serology. 15 blood culture positive cases also had very high antibody titer in tube agglutination test in the range of 320 to 2560 international units for all the patients.

Conclusion: PUO due to brucellosis are increasingly being reported in this area which was previously not encountered. Brucellosis has to be kept in mind for all PUO cases.

Due care has to be taken in laboratory while handling clinical specimens.

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Characteristics of Invasive Pneumococcal Disease (IPD) in Adults in South India

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Background: There are limited data on the patient characteristics in adults with IPD in India. We report a current prospective assessment of IPD detected by culture and urinary antigen in adults in a large referral medical center in India.

Methods: Adult patients admitted in Christian Medical College, Vellore, with clinical symptoms of pneumonia, meningitis or septicaemia were enrolled from June 2007. CSF or other normally sterile body fluids, and urine were collected. *S. pneumoniae* was identified using standard culture techniques or antigen testing (BinaxNOW[®]) on body fluids. 171 urine specimens are being tested by Binax[®], the MIC values were determined by agar dilution method and the isolates are being serotyped.

Preliminary Results: A total of 185 patients aged 18 years through 95 years were enrolled in first 6 months. 64 (36%) were females, 56 (30%) had diabetes mellitus, 22 (12%) had chronic obstructive airway disease, 12 (6.5%) had congestive cardiac failure and 9 (5%) had HIV infection. 165 blood, 64 CSF and 34 other body fluid specimens were collected. 18 cases of *S. pneumoniae* were identified by culture and additional 5 cases were detected by Binax on body fluids, a total yield of 12.5%, with yields of 12 (7.2%) from blood, 7 (10.9%) from CSF and 2 from other specimens. 93% of the isolates were resistant to cotrimoxazole. All the isolates were sensitive to penicillin, erythromycin, chloramphenicol and cefotaxime. Case fatality rate was 21.7%.

Conclusion: This is an update of current adult IPD in India and the first report of urinary antigen detection from India.

though other antimicrobials appeared effective. These data will provide information needed to consider policies for prevention and empirical management of adult IPD.

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Prevalence and Risks of *Vibrio parahaemolyticus* in Black Tiger Shrimp (*Penaeus monodon*)

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Background: The objective of this study was to determine the prevalence of *Vibrio parahaemolyticus* and its virulent strains in frozen and unprocessed cultured shrimp as well as their culture environment in Malaysia. The scope of this work was also to assess the risk of acquiring gastroenteritis due to *V. parahaemolyticus* for local population as a result of consumption of cooked black tiger shrimp and also for Japanese consumption of uncooked shrimp imported from Malaysia.

Methods: Frozen shrimps (30 samples), live shrimps (40 samples), sediments (38 samples) and water samples (48 samples) were collected from a shrimp factory and 3 farms respectively. A total of 241 suspected isolates were tested (50: frozen shrimp, 50: cultured live shrimp, 67: sediments and 74: water) targeting the *toxR*, thermostable direct hemolysin (*tdh*) and related hemolysin (*trh*) genes for confirmation of total and pathogenic *V. parahaemolyticus*. Microbiological risk assessment was conducted in order to estimate the risk of infection using @RISK software (Palisade USA).

Results: *V. parahaemolyticus* was detected in 98% of water samples with densities ranging from 10 to 420 cfu/ml whereas it was 200 to 9000 cfu/g for pond sediments. It was detected in all live shrimp samples with densities ranging from 300 to 8000 cfu/g. 43% of frozen shrimp samples were contaminated with *V. parahaemolyticus* ranging from 4 to 93 MPN/g. 46.5% of strains were found to be positive for *toxR* and 8% of the isolates from culture environment possessed the haemolysin *tdh* gene and *trh* gene. 7% of frozen shrimp samples were positive for virulent genes. Estimated illness per year is 123 persons (age from 18 to 59 years) for Malaysia and 63 for Japan.

Conclusion: This study indicated that pathogenic *V. parahaemolyticus* strains were present in shrimp culture environment in Malaysia and suggest a probable risk for health of people consuming raw shrimp.

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